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ABSTRACT OF THE DISCLOSURE

The spatial sound conference system enables participants in a teleconference to distinguish between speakers even during periods of interruption and overtalk, identify speakers based on spatial location cues, understand low volume speech, and block out background noise using spatial sound information. Spatial sound information may be captured using microphones positioned at the ear locations of a dummy head at a conference table, or spatial sound information may be added to a participant's monaural audio signal using head-related transfer functions. Head-related transfer functions simulate the frequency response of audio signals across the head from one ear to the other ear to create a spatial location for a sound. Spatial sound is transmitted across a communication channel, such as ISDN, and reproduced using spatially disposed loudspeakers positioned at the ears of a participant. By inserting a spatial sound component in a teleconference, a speaker other than the loudest speaker may be heard during periods of interruption and overtalk. Additionally, speakers may be more readily identified when they have a spatial sound position, and the perception of background noise is reduced.

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